1 REMARKS

3

4

5

6 The Rejection of Claims 1-12 Under 35 U.S.C. 103 over 7 Bruce (US Pat. #6,205,719) In View Of Bruce (US Pat. 8 No. 5,862,637)

9

10

11

12 1. Present claims 1-12 were rejected under 35 U.S.C. 103 as being unpatentable over Bruce US Pat. #6,205,719 (hereafter 13 14 '719) in view of Bruce US Pat. # 5,862,637 (hereafter '637). 15 this Reconsideration and withdrawal of rejection 16 respectfully requested because claims 1-12 recite novel 17 structure resulting in new and unexpected advantages, and 18 thus distinguish physically and operationally over the '719 19 and '637 references. Neither the '719 nor the '637 reference 20 disclose, teach, claim or suggest a roof-screen system as 21 disclosed and claimed in the present application, 22 supporting a roof screen on a roof, where a plurality of 23 elements of round galvanized steel tubing are 24 configured as separate frames and include a front element, a 25 bottom element, and a diagonal brace element. The present invention also discloses and claims a plurality of base 26 27 supports operably secured to the frame elements, sleeve 1 connector means for connecting the plurality of frame

2 elements; and a plurality of support means for supporting a

3 plurality of face panels to the front element of the separate

4 frames. Accordingly, reconsideration and withdrawal of the

5 rejection of claims 1-12 is respectfully requested.

67

1

٠,

It is noted that neither the '719 nor '637 references 8 9 disclose, claim or teach the use of tubular frame elements-claimed in claim 1 as ... "frame element of round galvanized 10 steel tubing...". In the '719 reference which is cited, the 11 12 frame members are beam shaped and numbers 212 and 204 in the 13 drawing are the same part, only in a different orientation as explained in the '719 reference (col. 3 lines 25-35). As 14 noted above, however, it is not the tubular frame members 15 16 which are claimed alone, nor does applicant argue that such 17 elements in themselves are distinct. What is critical and 18 new, and not disclosed or claimed in any of the references 19 either alone or in combination, is that a plurality of frame 20 elements of round galvanized steel tubing are configured as 21 separate frames and include a front element, a bottom 22 element, and a diagonal brace element. Also, a plurality of 23 base supports operably secured to the frame elements, sleeve 24 connector means for connecting the plurality of frame 25 elements; and a plurality of support means for supporting a 26 plurality of face panels to the front element of the separate 1 frames. Accordingly, reconsideration and withdrawal of the
2 rejection of claims 1-12 is respectfully requested.

3

1

3. Further, the roof-screen system disclosed and claimed in 5 6 the '719 reference cannot use tubing for the framing members because the beam shaped extrusion includes a center hole that 7 8 is the entire length of the extrusion so wherever the beam is 9 cut, the hole is still there to receive the anchor bolt for the cap 202. If tubing were used, the cap would not be 10 anchored, therefore, the beam shaped extrusion is both a 11 12 essential part of the ۲719 reference. critical and 13 Accordingly, the '719 reference teaches away from using 14 tubular frame elements, and neither alone or in combination 15 with the `637 reference anticipate nor render obvious the 16 present invention as claimed. Accordingly, reconsideration 17 and withdrawal of the rejection of claims 1-12

19

18

respectfully requested.

20 The system disclosed and claimed in the present application is both unique and novel, The tubular frame 21 22 elements are used with end connectors 28 which slip over the 23 tubing and are attached with screws through the side of the 24 sleeve. The new and unexpected advantage of this is that 25 tubing is stronger in regards to lateral bending than a beam 26 shaped element. In order for a beam shaped extrusion to work 27 properly, it needs to be very thick and large to avoid

lateral bending when wind pressure is exerted on the roof 1 screen. This results in expensive and very heavy material. 2 The present application, by using tubular frame elements in 3 combination the end connectors with results in stronger 4 tubing, which is lighter in weight, and less expensive. 5 Moreover, the frame elements of round galvanized steel tubing 6 are configured as separate frames and include a front 7 element, a bottom element, and a diagonal brace element. This 8 system also uses a plurality of base supports operably 9 secured to the frame elements, sleeve connector means for 10 connecting the plurality of frame elements; and a plurality 11 12 of support means for supporting a plurality of face panels to 13 the front element of the separate frames. These features are 14 not disclosed, taught, claimed or suggested in any manner by in 15 the cited references, either alone or combination. 16 Accordingly, reconsideration and withdrawal of this rejection 17 is respectfully requested.

18

19

20

21

22

23

24

25

26

٠,

7

5. It was erroneously stated in the Office Action that three components of the "knuckle assembly" in the '719 reference (cap 202, yoke 208 and clamp 210), are the same as the components claimed in claims 3 and 8 of the present application. Reconsideration and withdrawal of this rejection is respectfully requested because base connector 26, cannot reasonably be compared to the knuckle assembly 200 of the '719 reference, as the base connector of the present

1 invention is not even used to attach the end of one tube to

2 the middle of another tube.

3

Š

j

- 4 6. It is also noted that end connector 28, of the present
- 5 application, cannot reasonably be compared to clamp 210 or
- 6 the '719 reference. End connector 28 is a one piece fitting
- 7 that screws onto the end of a tube to allow the tube to
- 8 attach to other fittings. In the '719 reference, clamp 210,
- 9 is simply a clamp. Its use and purpose is to mate with yoke
- 10 208, to form a compression around the beam extrusion.

11

- 12 7. Regarding the assertion that field connector of the
- 13 present application is comparable to beam extrusion 212 and
- 14 bolt 214 of the '719 reference. It is respectfully submitted
- 15 that the field connector of the present invention, as
- 16 disclosed and claimed, is a one-piece sleeve that slips over
- 17 the tubing and bolts through the side when in position,
- 18 rather than the clamping like mechanism of beam extrusion 212
- 19 of the '719 reference. Reconsideration and withdrawal of this
- 20 rejection is accordingly, respectfully requested.

21

- 22 8. As noted in the prior request for reconsideration, the
- 23 '719 reference connects one frame beam to another by a 3-part
- 24 assembly consisting of the cap 202, yoke 208, and claim 210.
- 25 This system clamps the parts together around the frame using
- 26 compression to secure it. It is also maintains a permanent

pivot point with pin 206 which never gets tightened. The present invention, uses tubular frame elements and a two part assembly consisting of end connector 28, and field connector 30, that slips over the tubing and attaches mechanically with a series of screws through the sides of the part into the tubing. The pivot point is permanently tightened with a bolt and nut 45. The present invention eliminates an extra part and provides both a stronger and less expensive system with tightened pivot points, than either the '719 or 637 reference, either alone or in combination. Accordingly, reconsideration and withdrawal of the rejection of claim 1-12

is respectfully requested.

1/2

9. Regarding the rejection of the dependent claims, as they depend from independent claim 1, and 6, which are clearly patentable (all of the arguments given above are incorporated herein by reference), it is respectfully submitted that they are a fortiori patentable as well. Since neither the '719 nor the '637 reference disclose, teach or suggest the use of a plurality of T-shaped base supports. they are independently patentable as well. Also, it is noted that base supports 24 of the present application and the "footers" of the '719 reference are very different in construction, operation, utility and effect. The "footer" of the '719 reference is round as has a threaded hole in the top of the tubular shaped

stanchion that receives a bolt that is inserted through the 1 2 top of the cap 202, that is part of the knuckle assembly 116. 3 This bolt through the top of the knuckle assembly leaves the 4 footer assembly vulnerable to leaks. The present invention, 5 by contrast, bolts through the side of the base support 6 stanchion so it doesn't have standing water and consequently Moreover, the '719 reference discloses and 7 will not leak. 8 claims the connection between the footer and the frame 9 "pinned". This means that it can pivot and move around the 10 hinge pin 206 under wind load. This pinned condition creates 11 a structural vulnerability with the attachment of the footers 12 to the roof structure. Because they are allowed to pivot, it 13 creates a weak axis condition at the connection of the base 14 plate 308, and the roof structure. This is a significant 15 limitation of the '719 reference, as the weak condition of 16 the axis renders the system useless under even relatively low 17 wind loads. Contrast this with the present invention, where 18 the connection between the base connector fin 44, and the 19 base cap fin 39, is a solid fixed connection, and has no 20 movement under wind load. This results in the front base 21 support, the rear base support, and the horizontal tube to be 22 locked together, eliminating the weak rocking potential at 23 the connection of the base plate 25, to the roof structure. 24 The new and unexpected result is a stronger system that can 25 withstand higher wind loads, is lighter, and less expensive

•

1

to manufacture and install. Accordingly, reconsideration and 1 withdrawal of this rejection is respectfully requested. 2 3 4 Conclusion 5 6 10. For all of the reasons given above, this application 7 respectfully submitted to contain claims which define a 8 novel, patentable, and truly valuable invention. 9 allowance of this application is respectfully submitted to be 10 proper and is respectfully solicited. 11 Very respectfully, 12 13 Jeffrey Hall, Attorney for Applicant 14 Reg. No. 32570 15 16 212 Clinton Street 17 Santa Cruz, CA. 95062 18 (831) 423-1365 19 Certificate of Mailing 20 I hereby certify that this correspondence will be placed in 21 an envelope marked "First Class Mail", addressed to "U.S. 22 Patent and Trademark Office, Washington, D.C. 20231, and 23 affixed with adequate first class postage, and that such 24 envelope will then be sealed and deposited in an approved 25 United States Postal Service deposit box on the date below. 26 27 28 Date: January 7, 2003 29 30

31